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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/836,204	04/18/2001	Seong Cheol Shin	YHK-065	6497

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EXAMINER

LAO, LUN YI

ART UNIT	PAPER NUMBER
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2673

DATE MAILED: 08/28/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/836,204

Applicant(s)
Shin

Examiner
Lun-yi Lao

Art Unit
2673



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Aug 4, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 3 6) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 15 and 20 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification fails to disclose the first set of signals(X-Top or Y-Top) and the second set of signals(X-Bottom, Y-Bottom) are in the same scanning(common) interval when the first set of signals(X-Top or Y-Top) and the second set of signals(X-Bottom, Y-Bottom) are asymmetrically(see figure 6),

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless -

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

4. Claims 13-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Kim et al(6,229,516).

As to claims 13-22, Kim et al teaches an apparatus comprising a first driver(22) for applying a first set of signals(G1-Gm) to a first set of address electrodes(G1-Gm); a second driver(24) applying a second set of signals(Gm+1-G2m), which is asymmetrical to the first set of signals(G1-Gm), to a second set of address electrodes(Gm+1-G2m)(see figures 2, 9; column 4, lines 4-18; column 7, lines 25-68 and column 8, lines 1-36).

As to claims 14 and 19, Kim et al teach the first set of signals(G1-Gm) overlaps the second set of signals(Gm+1-G2m)(see figure 9).

As to claim 15, Kim et al the first set of signals(G1-Gm) are in a common interval or same scanning interval of the second set of signals(Gm+1-G2m)(see figures 8- 9).

As to claims 16 and 21, Kim et al teach the second set of signals(Gm+1-G2m) being approximately half way through the first set of signals(G1-Gm)(see figure 9).

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As to claims 17 and 22, Kim et al teach the apparatus is a plasma display(see column 1, lines 10-18).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tokunaga et al(5,995,069) in view of Kim et al(6,229,516).

Tokunaga et al teach a method for driving a plasma display comprising the steps of: applying an upper driving signal(D1-D12) to address electrode lines provided at the upper block and applying a lower driving signal(D--D12) to address electrode lines provided at the lower block to overlap with the upper driving signal(simultaneous with the lower driving signal(see figures 9, 11; column 9, lines 58-68 and column 10, lines 1-12).

Tokunaga et al fail to drive a plasma display panel utilizing an asymmetry sustaining.

Kim et al teach a asymmetry driving method for driving a flat panel display(see figures 2, 9 and column 8, lines 6-19). It would have been obvious to have modified Tokunaga et al with the

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teaching of Kim, since Kim has disclosed a plasma display is a flat panel display and the flat panel display could be either using a symmetry driving method(see figure 8) or an asymmetry driving method(see figure 9)(see figures 2, 8-9; column 1, lines 10-18; column 7, lines 22-68 and column 8, lines 1-19) and Tokunaga et al have disclosed the upper scanning driver(32a) and the lower scanning driver(32b) could be independently operated by themselves(see figure 10) and the upper data driver(34a) and the lower data driver(34b) could be independently operated by themselves(see figure 11).

As to claims 8-11, Kim et al teach a driving apparatus having a controller(100) for controlling the energy recovery circuit(12, 14) and Kim et al teaches first and second signal for controlling first and second address drivers(12, 14) having different phase(delay)(see figures 2 and 9).

As to claims 2 and 11, Kim et al teach the lower driving signal(down A) is applied at halftime of an application period of the upper driving signal(see figure 9).

As to claims 3-6, Kim et al teach when the upper driving signal(up A) falls into ground level, the lower driving signal(down A) remains at a stable voltage level; when the lower driving signal(down A) falls into ground level, the upper driving signal(up A) remains at a stable voltage level (see figure 9).

As to claim 12, Tokunaga et al teach a first scanning/sustaining driver(32A); a second scanning/sustaining driver(32B) and a common sustaining driver(33)(see figure 10).

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Response to Arguments

7. Applicant's arguments filed on August 4, 2003 have been fully considered but they are not persuasive.

Applicant argues that Kim et al does not disclose a plasma display utilizing asymmetry sustaining on page 9. The examiner disagrees with that since Kim et al does not disclose a plasma display utilizing asymmetry(see figures 2, 9; column 1, lines 10-18 and paragraph #4 above).

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however,

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will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lun-yi, Lao whose telephone number is (703) 305-4873.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala, can be reached at (703) 305-4938.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

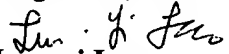
or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

August 26, 2003


Lun-yi Lao
Primary Examiner